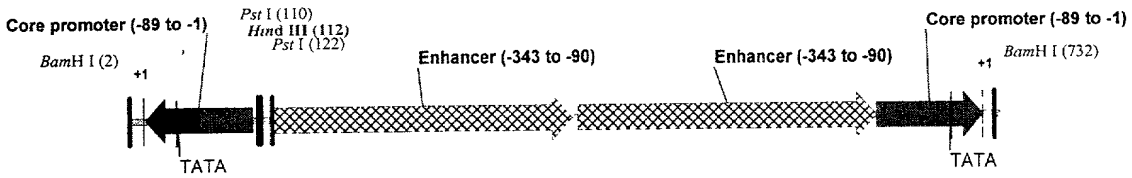
Fig. 1



BDPC with 2 enhancers based on CaMV 35S promoter

736 bp

FIG. 2

```
      BamHI
      ~~~~~~
  1   GGATCCAGCG TGTCCTCTCC AAATGAAATG AACTTCCTTA TATAGAGGAA GGGTCTTGCG AAGGATAGTG GGATTGTGCG
      CCTAGGTCGC ACAGGAGAGG TTTACTTTAC TTGAAGGAAT ATATCTCCTT CCCAGAACGC TTCCTATCAC CCTAACACGC

                                 PstI  HindIIIPstI
                                 ~~~~~~~~~~~~~~~~~~~
 81   TCATCCCTTA CGTCAGTGGA GATACTGCAG AAGCTTCTGC AGTGAGACTT TTCAACAAAG GGTAATATCG GGAAACCTCC
      AGTAGGGAAT GCAGTCACCT CTATGACGTC TTCGAAGACG TCACTCTGAA AAGTTGTTTC CCATTATAGC CCTTTGGAGG

161   TCGGATTCCA TTGCCCAGCT ATCTGTCACT TCATCAAAAG GACAGTAGAA AAGGAAGGTG GCACCTACAA ATGCCATCAT
      AGCCTAAGGT AACGGGTCGA TAGACAGTGA AGTAGTTTTC CTGTCATCTT TTCCTTCCAC CGTGGATGTT TACGGTAGTA

241   TGCGATAAAG GAAAGGCTAT CGTTCAAGAT GCCTCTGCCG ACAGTGGTCC CAAAGATGGA CCCCCACCCA CGAGGAGCAT
      ACGCTATTTC CTTTCCGATA GCAAGTTCTA CGGAGACGGC TGTCACCAGG GTTTCTACCT GGGGGTGGGT GCTCCTCGTA

321   CGTGGAAAAA GAAGACGTTC CAACCACGTC TTCAAAGCAA GTGGATTGAT GTGATTGCAG TGAGACTTTT CAACAAAGGG
      GCACCTTTTT CTTCTGCAAG GTTGGTGCAG AAGTTTCGTT CACCTAACTA CACTAACGTC ACTCTGAAAA GTTGTTTCCC

401   TAATATCGGG AAACCTCCTC GGATTCCATT GCCCAGCTAT CTGTCACTTC ATCAAAAGGA CAGTAGAAAA GGAAGGTGGC
      ATTATAGCCC TTTGGAGGAG CCTAAGGTAA CGGGTCGATA GACAGTGAAG TAGTTTTCCT GTCATCTTTT CCTTCCACCG

481   ACCTACAAAT GCCATCATTG CGATAAAGGA AAGGCTATCG TTCAAGATGC CTCTGCCGAC AGTGGTCCCA AAGATGGACC
      TGGATGTTTA CGGTAGTAAC GCTATTTCCT TTCCGATAGC AAGTTCTACG GAGACGGCTG TCACCAGGGT TTCTACCTGG

561   CCCACCCACG AGGAGCATCG TGGAAAAAGA AGACGTTCCA ACCACGTCTT CAAAGCAAGT GGATTGATGT GATATCTCCA
      GGGTGGGTGC TCCTCGTAGC ACCTTTTTCT TCTGCAAGGT TGGTGCAGAA GTTTCGTTCA CCTAACTACA CTATAGAGGT

641   CTGACGTAAG GGATGACGCA CAATCCCACT ATCCTTCGCA AGACCCTTCC TCTATATAAG GAAGTTCATT TCATTTGGAG
      GACTGCATTC CCTACTGCGT GTTAGGGTGA TAGGAAGCGT TCTGGGAAGG AGATATATTC CTTCAAGTAA AGTAAACCTC

            BamHI
            ~~~~~~
721   AGGACACGCT GGATCC  Seq. ID No. 1
      TCCTGTGCGA CCTAGG  Seq. ID No. 2
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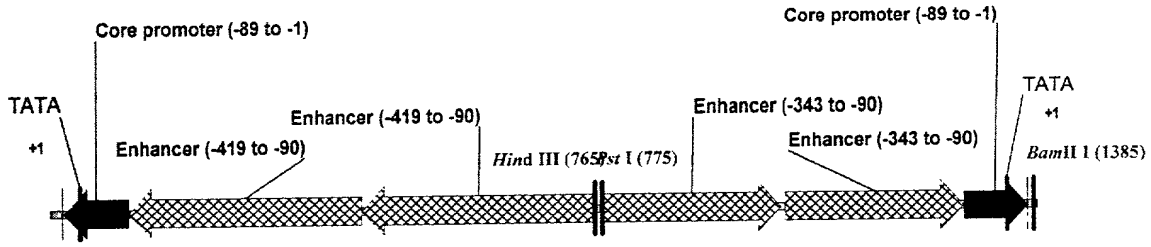
Fig. 3



BDPC with 4 enhancers based on CaMV 35S promoter

1389 bp

FIG. 4

SnaBI

Seq. ID No. 3 1 TACGTACAGC GTGTCCTCTC CAAATGAAAT GAACTTCCTT ATATAGAGGA AGGGTCTTGC GAAGGATAGT GGGATTGTGC
Seq. ID No. 4 ATGCATGTCG CACAGGAGAG GTTTACTTTA CTTGAAGGAA TATATCTCCT TCCCAGAACG CTTCCTATCA CCCTAACACG

81 GTCATCCCTT ACGTCAGTGG AGATATCACA TCAATCCACT TGCTTTGAAG ACGTGGTTGG AACGTCTTCT TTTTCCACGA
CAGTAGGGAA TGCAGTCACC TCTATAGTGT AGTTAGGTGA ACGAAACTTC TGCACCAACC TTGCAGAAGA AAAAGGTGCT

161 TGCTCCTCGT GGGTGGGGGT CCATCTTTGG GACCACTGTC GGCAGAGGCA TCTTCAACGA TGGCCTTTCC TTTATCGCAA
ACGAGGAGCA CCCACCCCCA GGTAGAAACC CTGGTGACAG CCGTCTCCGT AGAAGTTGCT ACCGGAAAGG AAATAGCGTT

241 TGATGGCATT TGTAGGAGCC ACCTTCCTTT TCCACTATCT TCACAATAAA GTGACAGATA GCTGGGCAAT GGAATCCGAG
ACTACCGTAA ACATCCTCGG TGGAAGGAAA AGGTGATAGA AGTGTTATTT CACTGTCTAT CGACCCGTTA CCTTAGGCTC

321 GAGGTTTCCG GATATTACCC TTTGTTGAAA AGTCTCAATT GCCCTTTGGT CTTCTGAGAC TGTATCTTTG ATATTTTTGG
CTCCAAAGGC CTATAATGGG AAACAACTTT TCAGAGTTAA CGGGAAACCA GAAGACTCTG ACATAGAAAC TATAAAAACC

401 AGTAGACAAG TGTGTCGTGC TCCACCATGT TGATTCACAT CAATCCACTT GCTTTGAAGA CGTGGTTGGA ACGTCTTCTT
TCATCTGTTC ACACAGCACG AGGTGGTACA ACTAAGTGTA GTTAGGTGAA CGAAACTTCT GCACCAACCT TGCAGAAGAA

481 TTTCCACGAT GCTCCTCGTG GGTGGGGGTC CATCTTTGGG ACCACTGTCG GCAGAGGCAT CTTCAACGAT GGCCTTTCCT
AAAGGTGCTA CGAGGAGCAC CCACCCCCAG GTAGAAACCC TGGTGACAGC CGTCTCCGTA GAAGTTGCTA CCGGAAAGGA

561 TTATCGCAAT GATGGCATTT GTAGGAGCCA CCTTCCTTTT CCACTATCTT CACAATAAAG TGACAGATAG CTGGGCAATG
AATAGCGTTA CTACCGTAAA CATCCTCGGT GGAAGGAAAA GGTGATAGAA GTGTTATTTC ACTGTCTATC GACCCGTTAC

641 GAATCCGAGG AGGTTTCCGG ATATTACCCT TTGTTGAAAA GTCTCAATTG CCCTTTGGTC TTCTGAGACT GTATCTTTGA
CTTAGGCTCC TCCAAAGGCC TATAATGGGA AACAACTTTT CAGAGTTAAC GGGAAACCAG AAGACTCTGA CATAGAAACT

HindIIIPstI

721 TATTTTTGGA GTAGACAAGT GTGTCGTGCT CCACCATGTT GATAAGCTTC TGCAGTGAGA CTTTTCAACA AAGGGTAATA
ATAAAAACCT CATCTGTTCA CACAGCACGA GGTGGTACAA CTATTCGAAG ACGTCACTCT GAAAAGTTGT TTCCCATTAT

801 TCGGGAAACC TCCTCGGATT CCATTGCCCA GCTATCTGTC ACTTCATCAA AAGGACAGTA GAAAAGGAAG GTGGCACCTA
AGCCCTTTGG AGGAGCCTAA GGTAACGGGT CGATAGACAG TGAAGTAGTT TTCCTGTCAT CTTTTCCTTC CACCGTGGAT

881 CAAATGCCAT CATTGCGATA AAGGAAAGGC TATCGTTCAA GATGCCTCTG CCGACAGTGG TCCCAAAGAT GGACCCCCAC
GTTTACGGTA GTAACGCTAT TTCCTTTCCG ATAGCAAGTT CTACGGAGAC GGCTGTCACC AGGGTTTCTA CCTGGGGGTG

961 CCACGAGGAG CATCGTGGAA AAAGAAGACG TTCCAACCAC GTCTTCAAAG CAAGTGGATT GATGTGATTG CAGTGAGACT
GGTGCTCCTC GTAGCACCTT TTTCTTCTGC AAGGTTGGTG CAGAAGTTTC GTTCACCTAA CTACACTAAC GTCACTCTGA

1041 TTTCAACAAA GGGTAATATC GGGAAACCTC CTCGGATTCC ATTGCCCAGC TATCTGTCAC TTCATCAAAA GGACAGTAGA
AAAGTTGTTT CCCATTATAG CCCTTTGGAG GAGCCTAAGG TAACGGGTCG ATAGACAGTG AAGTAGTTTT CCTGTCATCT

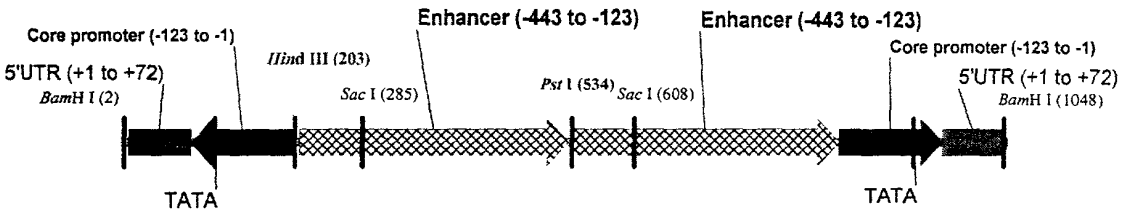
1121 AAAGGAAGGT GGCACCTACA AATGCCATCA TTGCGATAAA GGAAAGGCTA TCGTTCAAGA TGCCTCTGCC GACAGTGGTC
TTTCCTTCCA CCGTGGATGT TTACGGTAGT AACGCTATTT CCTTTCCGAT AGCAAGTTCT ACGGAGACGG CTGTCACCAG

1201 CCAAAGATGG ACCCCCACCC ACGAGGAGCA TCGTGGAAAA AGAAGACGTT CCAACCACGT CTTCAAAGCA AGTGGATTGA
GGTTTCTACC TGGGGGTGGG TGCTCCTCGT AGCACCTTTT TCTTCTGCAA GGTTGGTGCA GAAGTTTCGT TCACCTAACT

1281 TGTGATATCT CCACTGACGT AAGGGATGAC GCACAATCCC ACTATCCTTC GCAAGACCCT TCCTCTATAT AAGGAAGTTC
ACACTATAGA GGTGACTGCA TTCCCTACTG CGTGTTAGGG TGATAGGAAG CGTTCTGGGA AGGAGATATA TTCCTTCAAG

Replacement Sheet

Fig. 5



BDPC with 2 enhancers based on CsVMV promoter

1052 bp

Fig. 6

```
      BamHI
      ~~~~~~
  1   GGATCCACAA ACTTACAAAT TTCTCTGAAG TTGTATCCTC AGTACTTCAA AGAAAATAGC TTACACCAAA TTTTTTCTTG
      CCTAGGTGTT TGAATGTTTA AAGAGACTTC AACATAGGAG TCATGAAGTT TCTTTTATCG AATGTGGTTT AAAAAAGAAC
 ---------------------------------------------------------------------------------------------
 81   TTTTCACAAA TGCCGAACTT GGTTCCTTAT ATAGGAAAAC TCAAGGGCAA AAATGACACG GAAAAATATA AAAGGATAAG
      AAAAGTGTTT ACGGCTTGAA CCAAGGAATA TATCCTTTTG AGTTCCCGTT TTTACTGTGC CTTTTTATAT TTTCCTATTC
 ---------------------------------------------------------------------------------------------
                                                  HindIII
                                                  ~~~~~~
161   TAGTGGGGGA TAAGATTCCT TTGTGATAAG GTTACTTTCC GAAGCTTCCA GAAGGTAATT ATCCAAGATG TAGCATCAAG
      ATCACCCCCT ATTCTAAGGA AACACTATTC CAATGAAAGG CTTCGAAGGT CTTCCATTAA TAGGTTCTAC ATCGTAGTTC
 ---------------------------------------------------------------------------------------------
                                                 SacI
                                                 ~~~~~~~
241   AATCCAATGT TTACGGGAAA AACTATGGAA GTATTATGTG AGCTCAGCAA GAAGCAGATC AATATGCGGC ACATATGCAA
      TTAGGTTACA AATGCCCTTT TTGATACCTT CATAATACAC TCGAGTCGTT CTTCGTCTAG TTATACGCCG TGTATACGTT
 ---------------------------------------------------------------------------------------------
321   CCTATGTTCA AAAATGAAGA ATGTACAGAT ACAAGATCCT ATACTGCCAG AATACGAAGA AGAATACGTA GAAATTGAAA
      GGATACAAGT TTTTACTTCT TACATGTCTA TGTTCTAGGA TATGACGGTC TTATGCTTCT TCTTATGCAT CTTTAACTTT
 ---------------------------------------------------------------------------------------------
401   AAGAAGAACC AGGCGAAGAA AAGAATCTTG AAGACGTAAG CACTGACGAC AACAATGAAA AGAAGAAGAT AAGGTCGGTG
      TTCTTCTTGG TCCGCTTCTT TTCTTAGAAC TTCTGCATTC GTGACTGCTG TTGTTACTTT TCTTCTTCTA TTCCAGCCAC
 ---------------------------------------------------------------------------------------------
                                                        PstI
                                                        ~~~~~~~
481   ATTGTGAAAG AGACATAGAG GACACATGTA AGGTGGAAAA TGTAAGGGCT GCAGAAGGTA ATTATCCAAG ATGTAGCATC
      TAACACTTTC TCTGTATCTC CTGTGTACAT TCCACCTTTT ACATTCCCGA CGTCTTCCAT TAATAGGTTC TACATCGTAG
 ---------------------------------------------------------------------------------------------
                                                  SacI
                                                  ~~~~~~
561   AAGAATCCAA TGTTTACGGG AAAAACTATG GAAGTATTAT GTGAGCTCAG CAAGAAGCAG ATCAATATGC GGCACATATG
      TTCTTAGGTT ACAAATGCCC TTTTTGATAC CTTCATAATA CACTCGAGTC GTTCTTCGTC TAGTTATACG CCGTGTATAC
 ---------------------------------------------------------------------------------------------
641   CAACCTATGT TCAAAAATGA AGAATGTACA GATACAAGAT CCTATACTGC CAGAATACGA AGAAGAATAC GTAGAAATTG
      GTTGGATACA AGTTTTTACT TCTTACATGT CTATGTTCTA GGATATGACG GTCTTATGCT TCTTCTTATG CATCTTTAAC
 ---------------------------------------------------------------------------------------------
721   AAAAAGAAGA ACCAGGCGAA GAAAAGAATC TTGAAGACGT AAGCACTGAC GACAACAATG AAAAGAAGAA GATAAGGTCG
      TTTTTCTTCT TGGTCCGCTT CTTTTCTTAG AACTTCTGCA TTCGTGACTG CTGTTGTTAC TTTTCTTCTT CTATTCCAGC
 ---------------------------------------------------------------------------------------------
801   GTGATTGTGA AAGAGACATA GAGGACACAT GTAAGGTGGA AAATGTAAGG GCGGAAAGTA ACCTTATCAC AAAGGAATCT
      CACTAACACT TTCTCTGTAT CTCCTGTGTA CATTCCACCT TTTACATTCC CGCCTTTCAT TGGAATAGTG TTTCCTTAGA
 ---------------------------------------------------------------------------------------------
881   TATCCCCCAC TACTTATCCT TTTATATTTT TCCGTGTCAT TTTTGCCCTT GAGTTTTCCT ATATAAGGAA CCAAGTTCGG
      ATAGGGGGTG ATGAATAGGA AAATATAAAA AGGCACAGTA AAAACGGGAA CTCAAAAGGA TATATTCCTT GGTTCAAGCC
 ---------------------------------------------------------------------------------------------
961   CATTTGTGAA AACAAGAAAA AATTTGGTGT AAGCTATTTT CTTTGAAGTA CTGAGGATAC AACTTCAGAG AAATTTGTAA
      GTAAACACTT TTGTTCTTTT TTAAACCACA TTCGATAAAA GAAACTTCAT GACTCCTATG TTGAAGTCTC TTTAAACATT
 ---------------------------------------------------------------------------------------------
          BamHI
          ~~~~~~~
1041  GTTTGTGGAT CC  Seq. ID No. 5
      CAAACACCTA GG  Seq. ID No. 6
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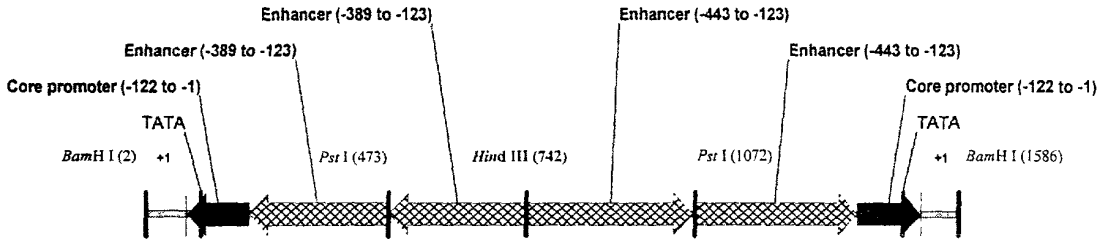
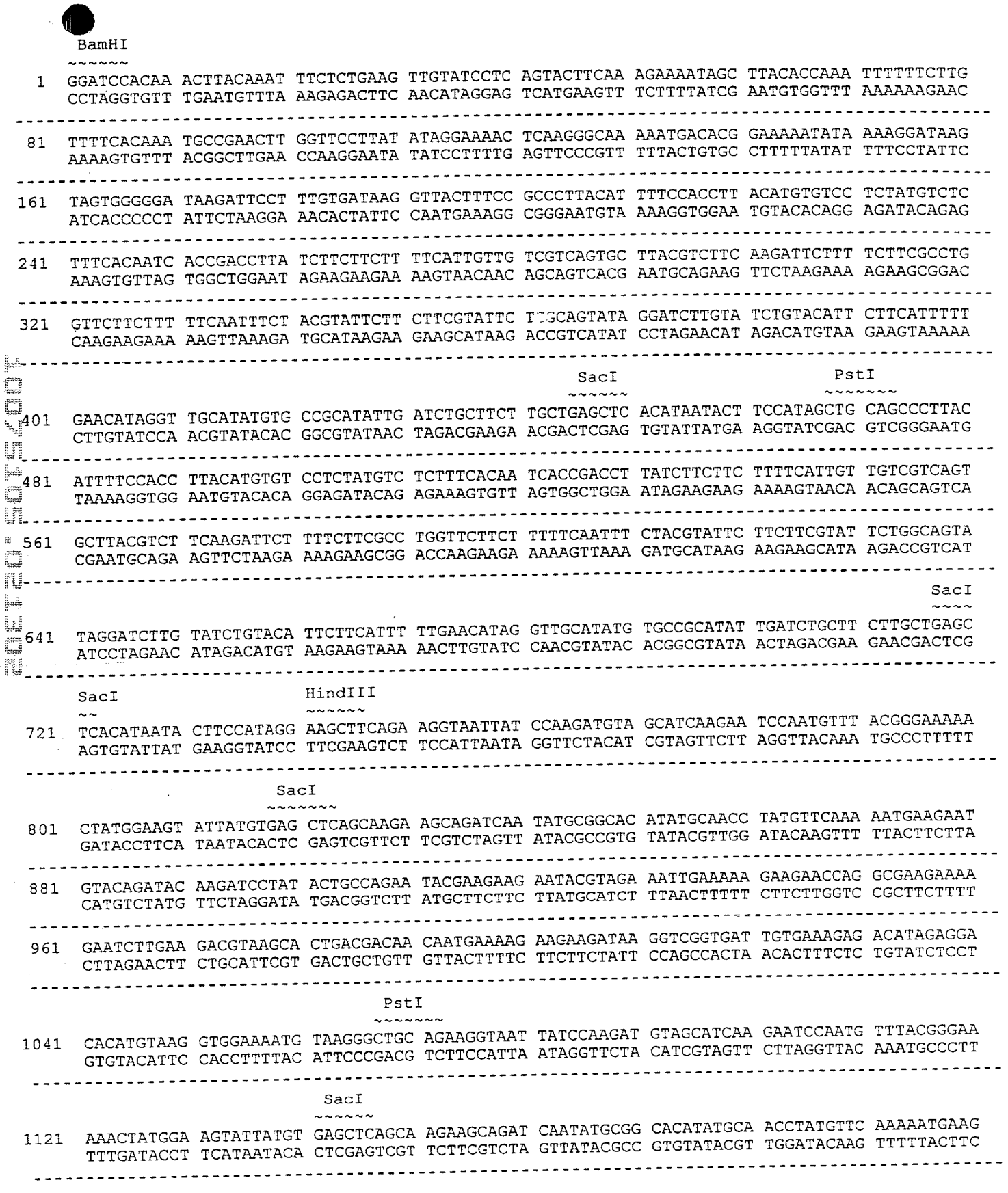
Fig. 7



BDPC with 4 enhancers based on CsVMV promoter

1590 bp

FIG. 8



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      TTACATGTCT ATGTTCTAGG ATATGACGGT CTTATGCTTC TTCTTATGCA TCTTTAACTT TTTCTTCTTG GTCCGCTTCT

1281  AAAGAATCTT GAAGACGTAA GCACTGACGA CAACAATGAA AAGAAGAAGA TAAGGTCGGT GATTGTGAAA GAGACATAGA
      TTTCTTAGAA CTTCTGCATT CGTGACTGCT GTTGTTACTT TTCTTCTTCT ATTCCAGCCA CTAACACTTT CTCTGTATCT

1361  GGACACATGT AAGGTGGAAA ATGTAAGGGC GGAAAGTAAC CTTATCACAA AGGAATCTTA TCCCCCACTA CTTATCCTTT
      CCTGTGTACA TTCCACCTTT TACATTCCCG CCTTTCATTG GAATAGTGTT TCCTTAGAAT AGGGGGTGAT GAATAGGAAA

1441  TATATTTTTC CGTGTCATTT TTGCCCTTGA GTTTTCCTAT ATAAGGAACC AAGTTCGGCA TTTGTGAAAA CAAGAAAAAA
      ATATAAAAAG GCACAGTAAA AACGGGAACT CAAAAGGATA TATTCCTTGG TTCAAGCCGT AAACACTTTT GTTCTTTTTT

                                                                                  BamHI
                                                                                  ~~~~~~
1521  TTTGGTGTAA GCTATTTTCT TTGAAGTACT GAGGATACAA CTTCAGAGAA ATTTGTAAGT TTGTGGATCC   Seq. ID No. 7
      AAACCACATT CGATAAAAGA AACTTCATGA CTCCTATGTT GAAGTCTCTT TAAACATTCA AACACCTAGG   Seq. ID No. 8
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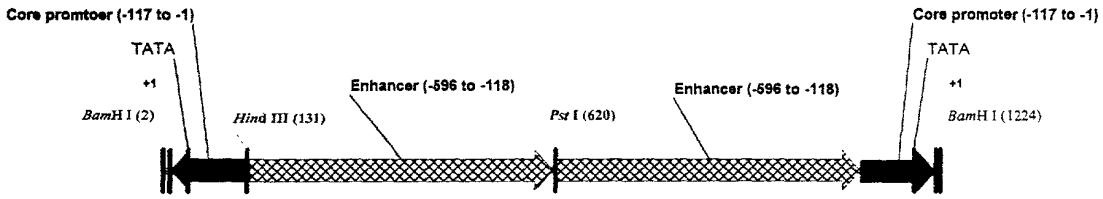
Attorney Docket No. 5015.0199P

Fig. 9



BDPC with 2 enhancers based on ACT2 promoter

1228 bp

FIG. 10

```
          BamHI
          ~~~~~~
   1  GGATCCTTGT TTTCAAAGCG GAGAGGAAAA TATATGAATT TATATAGGCG GGTTTATCTC TTACAACTTT ATTTTCGGCC
      CCTAGGAACA AAAGTTTCGC CTCTCCTTTT ATATACTTAA ATATATCCGC CCAAATAGAG AATGTTGAAA TAAAAGCCGG
  ---------------------------------------------------------------------------------------------
                                                          HindIII
                                                          ~~~~~~~
  81  TTTCAAAAAA ATAATTAAAA TCGACAGACA CGAATCATTT CGACCACAGA AGCTTCAACT ATTTTTATGT ATGCAAGAGT
      AAAGTTTTTT TATTAATTTT AGCTGTCTGT GCTTAGTAAA GCTGGTGTCT TCGAAGTTGA TAAAAATACA TACGTTCTCA
  ---------------------------------------------------------------------------------------------
 161  CAGCATATGT ATAATTGATT CAGAATCGTT TTGACGAGTT CGGATGTAGT AGTAGCCATT ATTTAATGTA CATACTAATC
      GTCGTATACA TATTAACTAA GTCTTAGCAA AACTGCTCAA GCCTACATCA TCATCGGTAA TAAATTACAT GTATGATTAG
  ---------------------------------------------------------------------------------------------
 241  GTGAATAGTG ATATGATGAA ACATTGTATC TTATTGTATA AATATCCATA AACACATCAT GAAAGACACT TTCTTTCACG
      CACTTATCAC TATACTACTT TGTAACATAG AATAACATAT TTATAGGTAT TTGTGTAGTA CTTTCTGTGA AAGAAAGTGC
  ---------------------------------------------------------------------------------------------
 321  GTCTGAATTA ATTATGATAC AATTCTAATA GAAAACGAAT TAAATTACGT TGAATTGTAT GAAATCTAAT TGAACAAGCC
      CAGACTTAAT TAATACTATG TTAAGATTAT CTTTTGCTTA ATTTAATGCA ACTTAACATA CTTTAGATTA ACTTGTTCGG
  ---------------------------------------------------------------------------------------------
 401  AACCACGACG ACGACTAACG TTGCCTGGAT TGACTCGGTT TAAGTTAACC ACTAAAAAAA CGGAGCTGTC ATGTAACACG
      TTGGTGCTGC TGCTGATTGC AACGGACCTA ACTGAGCCAA ATTCAATTGG TGATTTTTTT GCCTCGACAG TACATTGTGC
  ---------------------------------------------------------------------------------------------
 481  CGGATCGAGC AGGTCACAGT CATGAAGCCA TCAAAGCAAA AGAACTAATC CAAGGGCTGA GATGATTAAT TAGTTTAAAA
      GCCTAGCTCG TCCAGTGTCA GTACTTCGGT AGTTTCGTTT TCTTGATTAG GTTCCCGACT CTACTAATTA ATCAAATTTT
  ---------------------------------------------------------------------------------------------
                                                                PstI
                                                                ~~~~~~
 561  ATTAGTTAAC ACGAGGGAAA AGGCTGTCTG ACAGCCAGGT CACGTTATCT TTACCTGCAG CAACTATTTT TATGTATGCA
      TAATCAATTG TGCTCCCTTT TCCGACAGAC TGTCGGTCCA GTGCAATAGA AATGGACGTC GTTGATAAAA ATACATACGT
  ---------------------------------------------------------------------------------------------
 641  AGAGTCAGCA TATGTATAAT TGATTCAGAA TCGTTTTGAC GAGTTCGGAT GTAGTAGTAG CCATTATTTA ATGTACATAC
      TCTCAGTCGT ATACATATTA ACTAAGTCTT AGCAAAACTG CTCAAGCCTA CATCATCATC GGTAATAAAT TACATGTATG
  ---------------------------------------------------------------------------------------------
 721  TAATCGTGAA TAGTGATATG ATGAAACATT GTATCTTATT GTATAAATAT CCATAAACAC ATCATGAAAG ACACTTTCTT
      ATTAGCACTT ATCACTATAC TACTTTGTAA CATAGAATAA CATATTTATA GGTATTTGTG TAGTACTTTC TGTGAAAGAA
  ---------------------------------------------------------------------------------------------
 801  TCACGGTCTG AATTAATTAT GATACAATTC TAATAGAAAA CGAATTAAAT TACGTTGAAT TGTATGAAAT CTAATTGAAC
      AGTGCCAGAC TTAATTAATA CTATGTTAAG ATTATCTTTT GCTTAATTTA ATGCAACTTA ACATACTTTA GATTAACTTG
  ---------------------------------------------------------------------------------------------
 881  AAGCCAACCA CGACGACGAC TAACGTTGCC TGGATTGACT CGGTTTAAGT TAACCACTAA AAAAACGGAG CTGTCATGTA
      TTCGGTTGGT GCTGCTGCTG ATTGCAACGG ACCTAACTGA GCCAAATTCA ATTGGTGATT TTTTTGCCTC GACAGTACAT
  ---------------------------------------------------------------------------------------------
 961  ACACGCGGAT CGAGCAGGTC ACAGTCATGA AGCCATCAAA GCAAAAGAAC TAATCCAAGG GCTGAGATGA TTAATTAGTT
      TGTGCGCCTA GCTCGTCCAG TGTCAGTACT TCGGTAGTTT CGTTTTCTTG ATTAGGTTCC CGACTCTACT AATTAATCAA
  ---------------------------------------------------------------------------------------------
1041  TAAAAATTAG TTAACACGAG GGAAAAGGCT GTCTGACAGC CAGGTCACGT TATCTTTACC TGTGGTCGAA ATGATTCGTG
      ATTTTTAATC AATTGTGCTC CCTTTTCCGA CAGACTGTCG GTCCAGTGCA ATAGAAATGG ACACCAGCTT TACTAAGCAC
  ---------------------------------------------------------------------------------------------
                                  BamHI
                                  ~~~~~~
1121  TCTGTCGATT TTAATTATTT TTTTGAAAGG CCGAAAATAA AGTTGTAAGA GATAAACCCG CCTATATAAA TTCATATATT
      AGACAGCTAA AATTAATAAA AAAACTTTCC GGCTTTTATT TCAACATTCT CTATTTGGGC GGATATATTT AAGTATATAA
  ---------------------------------------------------------------------------------------------
1201  TTCCTCTCCG CTTTGAAAAC AAGGATCC   Seq. ID No. 9
      AAGGAGAGGC GAAACTTTTG TTCCTAGG   Seq. ID No. 10
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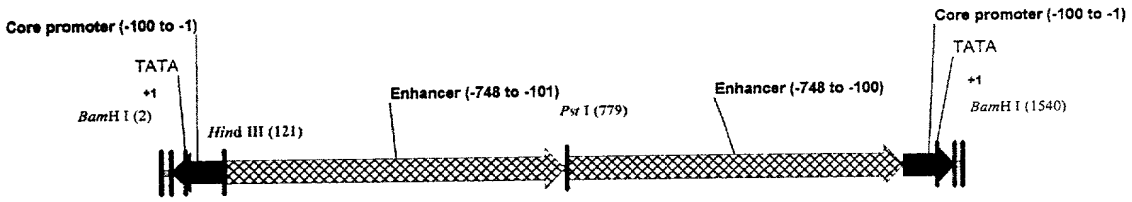
5,945,294

Fig. 11



BDPC with 2 enhancers based on PR1b promoter of tobacco

1544 bp

FIG. 12

BamHI
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```
   1  GGATCCTTTT GGGTTTTGGT GAGAAACAAG GAATAGTATG GATGGGTTTT AATAGGGAAT AAGAGTTGAA AAGTCTGCAA
      CCTAGGAAAA CCCAAAACCA CTCTTTGTTC CTTATCATAC CTACCCAAAA TTATCCCTTA TTCTCAACTT TTCAGACGTT

                                                HindIII
                                                ~~~~~~~
  81  TTTGTAAAAG AAAAAAATTG GAAAGTCACA TGTTAGCAGA AGCTTCAGAC TCATTAACTT AAAAGAAGAT ATAGACTCAT
      AAACATTTTC TTTTTTTAAC CTTTCAGTGT ACAATCGTCT TCGAAGTCTG AGTAATTGAA TTTTCTTCTA TATCTGAGTA

 161  TAACTTAAAA GAAGATATAG ATTCCAACAC AAGTTCAAAA TTCATAAACG TCAATCTTGG CTAAATTTCT GAACATCAAT
      ATTGAATTTT CTTCTATATC TAAGGTTGTG TTCAAGTTTT AAGTATTTGC AGTTAGAACC GATTTAAAGA CTTGTAGTTA

 241  GCATTCCTTT AAAATATAGA TAATAAGTTA GGATGTTGTC ACTTTCTTAA AGCATATTCC GACTGAGTCT GGTAGAATCT
      CGTAAGGAAA TTTTATATCT ATTATTCAAT CCTACAACAG TGAAAGAATT TCGTATAAGG CTGACTCAGA CCATCTTAGA

 321  CATAAACTTT AGGCCTTATC TCTTCAATTA GGCAATTACT TACCTCCGCT CTACTTTAAG AAAATTCAAT GGAGTACACC
      GTATTTGAAA TCCGGAATAG AGAAGTTAAT CCGTTAATGA ATGGAGGCGA GATGAAATTC TTTTAAGTTA CCTCATGTGG

 401  ATTATTAAGT TCATATAAAA ATAAAATTAT ATTAATTCTG TCTCTTGTTG GTTCGCTCTA TCTTTTTCTG TTTTCCTGCT
      TAATAATTCA AGTATATTTT TATTTTAATA TAATTAAGAC AGAGAACAAC CAAGCGAGAT AGAAAAAGAC AAAAGGACGA

 481  TCAACCATAA CATATACAAG AACTACATTT TCCAAGCTAG ATATATCTAA CATGACTGAC TTTGTAAATT TCTTTTGCCA
      AGTTGGTATT GTATATGTTC TTGATGTAAA AGGTTCGATC TATATAGATT GTACTGACTG AAACATTTAA AGAAAACGGT

 561  AGTTAAAGAA AAAAAATGAT GTTATCCAAA TAATAAAGAG AAAGAGCCCT AATGAAAAAA ATGATTTACT ATTAGAGTTG
      TCAATTTCTT TTTTTTACTA CAATAGGTTT ATTATTTCTC TTTCTCGGGA TTACTTTTTT TACTAAATGA TAATCTCAAC

 641  TTCAGCTAAT CACATCAATT ATGGTTTTCA TCAAGTATGA CTAATGGCGG CTCTTATCTC ACGTGATGTG ACATTGAAAT
      AAGTCGATTA GTGTAGTTAA TACCAAAAGT AGTTCATACT GATTACCGCC GAGAATAGAG TGCACTACAC TGTAACTTTA

                                                                    PstI
                                                                    ~~~~~~
 721  TCTTTGACTT TAACACTAAT GTCATATGCT TTCAAATTAA TAATCCGATA AAGCTGCAGA CTCATTAACT TAAAAGAAGA
      AGAAACTGAA ATTGTGATTA CAGTATACGA AAGTTTAATT ATTAGGCTAT TTCGACGTCT GAGTAATTGA ATTTTCTTCT

 801  TATAGACTCA TTAACTTAAA AGAAGATATA GATTCCAACA CAAGTTCAAA ATTCATAAAC GTCAATCTTG GCTAAATTTC
      ATATCTGAGT AATTGAATTT TCTTCTATAT CTAAGGTTGT GTTCAAGTTT TAAGTATTTG CAGTTAGAAC CGATTTAAAG

 881  TGAACATCAA TGCATTCCTT TAAAATATAG ATAATAAGTT AGGATGTTGT CACTTTCTTA AAGCATATTC CGACTGAGTC
      ACTTGTAGTT ACGTAAGGAA ATTTTATATC TATTATTCAA TCCTACAACA GTGAAAGAAT TTCGTATAAG GCTGACTCAG

 961  TGGTAGAATC TCATAAACTT TAGGCCTTAT CTCTTCAATT AGGCAATTAC TTACCTCCGC TCTACTTTAA GAAAATTCAA
      ACCATCTTAG AGTATTTGAA ATCCGGAATA GAGAAGTTAA TCCGTTAATG AATGGAGGCG AGATGAAATT CTTTTAAGTT

1041  TGGAGTACAC CATTATTAAG TTCATATAAA AATAAAATTA TATTAATTCT GTCTCTTGTT GGTTCGCTCT ATCTTTTTCT
      ACCTCATGTG GTAATAATTC AAGTATATTT TTATTTTAAT ATAATTAAGA CAGAGAACAA CCAAGCGAGA TAGAAAAAGA

1121  GTTTTCCTGC TTCAACCATA ACATATACAA GAACTACATT TTCCAAGCTA GATATATCTA ACATGACTGA CTTTGTAAAT
      CAAAAGGACG AAGTTGGTAT TGTATATGTT CTTGATGTAA AAGGTTCGAT CTATATAGAT TGTACTGACT GAAACATTTA

1201  TTCTTTTGCC AAGTTAAAGA AAAAAAATGA TGTTATCCAA ATAATAAAGA GAAAGAGCCC TAATGAAAAA AATGATTTAC
      AAGAAAACGG TTCAATTTCT TTTTTTTACT ACAATAGGTT TATTATTTCT CTTTCTCGGG ATTACTTTTT TTACTAAATG

1281  TATTAGAGTT GTTCAGCTAA TCACATCAAT TATGGTTTTC ATCAAGTATG ACTAATGGCG GCTCTTATCT CACGTGATGT
      ATAATCTCAA CAAGTCGATT AGTGTAGTTA ATACCAAAAG TAGTTCATAC TGATTACCGC CGAGAATAGA GTGCACTACA
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5,750,376
                                                                    ~~~~~~

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1361  GACATTGAAA TTCTTTGACT TTAACACTAA TGTCATATGC TTTCAAATTA ATAATCCGAT AAAGTCTGCT AACATGTGAC
      CTGTAACTTT AAGAAACTGA AATTGTGATT ACAGTATACG AAAGTTTAAT TATTAGGCTA TTTCAGACGA TTGTACACTG
```

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1441  TTTCCAATTT TTTTCTTTTA CAAATTGCAG ACTTTTCAAC TCTTATTCCC TATTAAAACC CATCCATACT ATTCCTTGTT
      AAAGGTTAAA AAAAGAAAAT GTTTAACGTC TGAAAAGTTG AGAATAAGGG ATAATTTTGG GTAGGTATGA TAAGGAACAA
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                          BamHI
                          ~~~~~~~
1521  TCTCACCAAA ACCCAAAAGG ATCC   Seq. ID No. 11
      AGAGTGGTTT TGGGTTTTCC TAGG   Seq. ID No. 12
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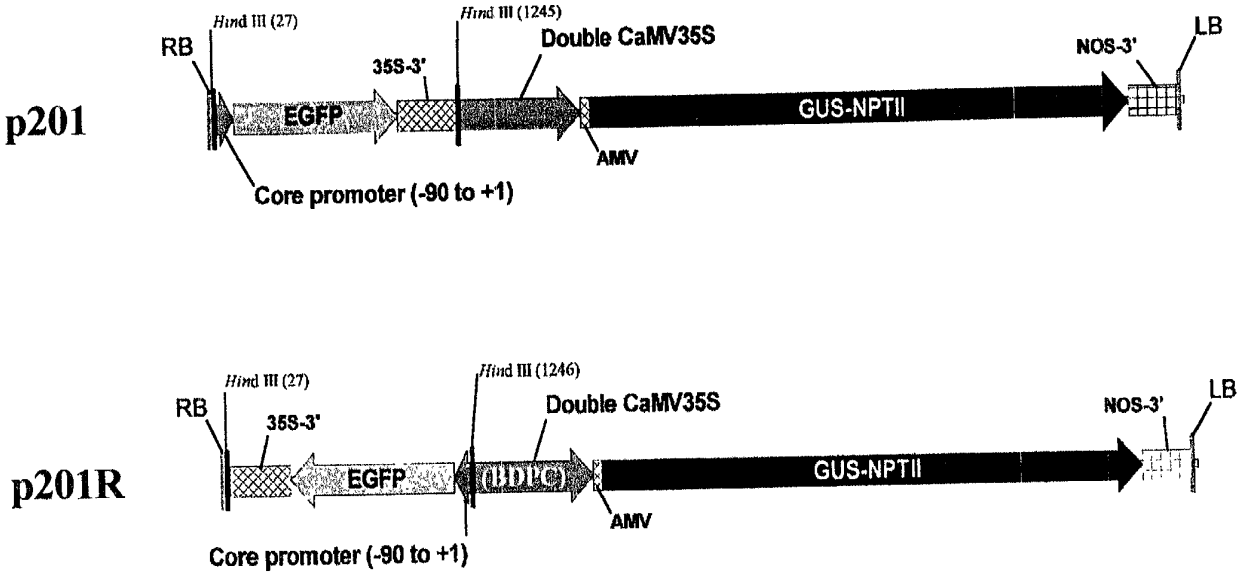
SUBSTITUTE SHEET (RULE 26)

Figure 13. Physical Map of T-DNA Region of Binary Vectors Containing a BDPC



10075105 .021302

Figure 14. Transient GFP Expression in Grape SE (*Vitis vinifera* cv. Thompson Seedless) after Transformation Using Binary Vectors p201 and p201R

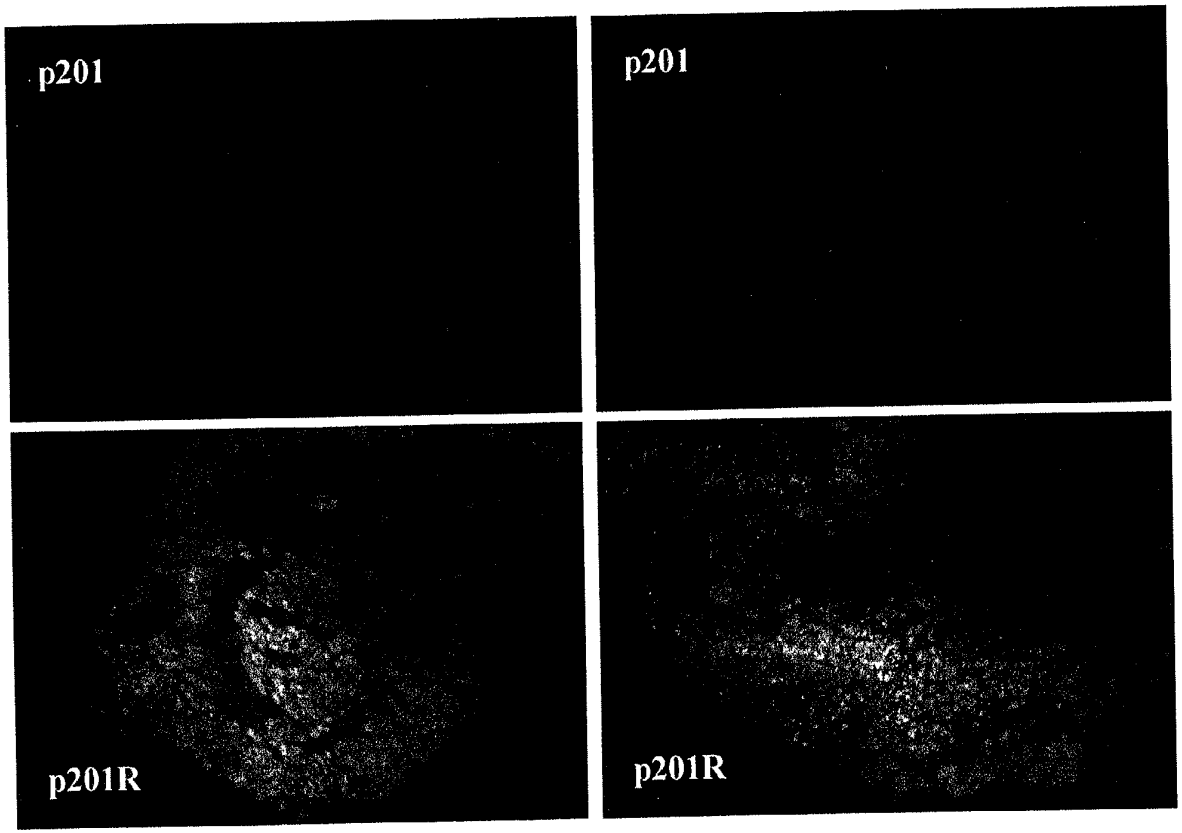


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Figure 15. Transient GFP Expression Efficiency of Grape SE (*V. vinifera* cv. Thompson Seedless) after Transformation Using Binary Vectors p201 And p201R

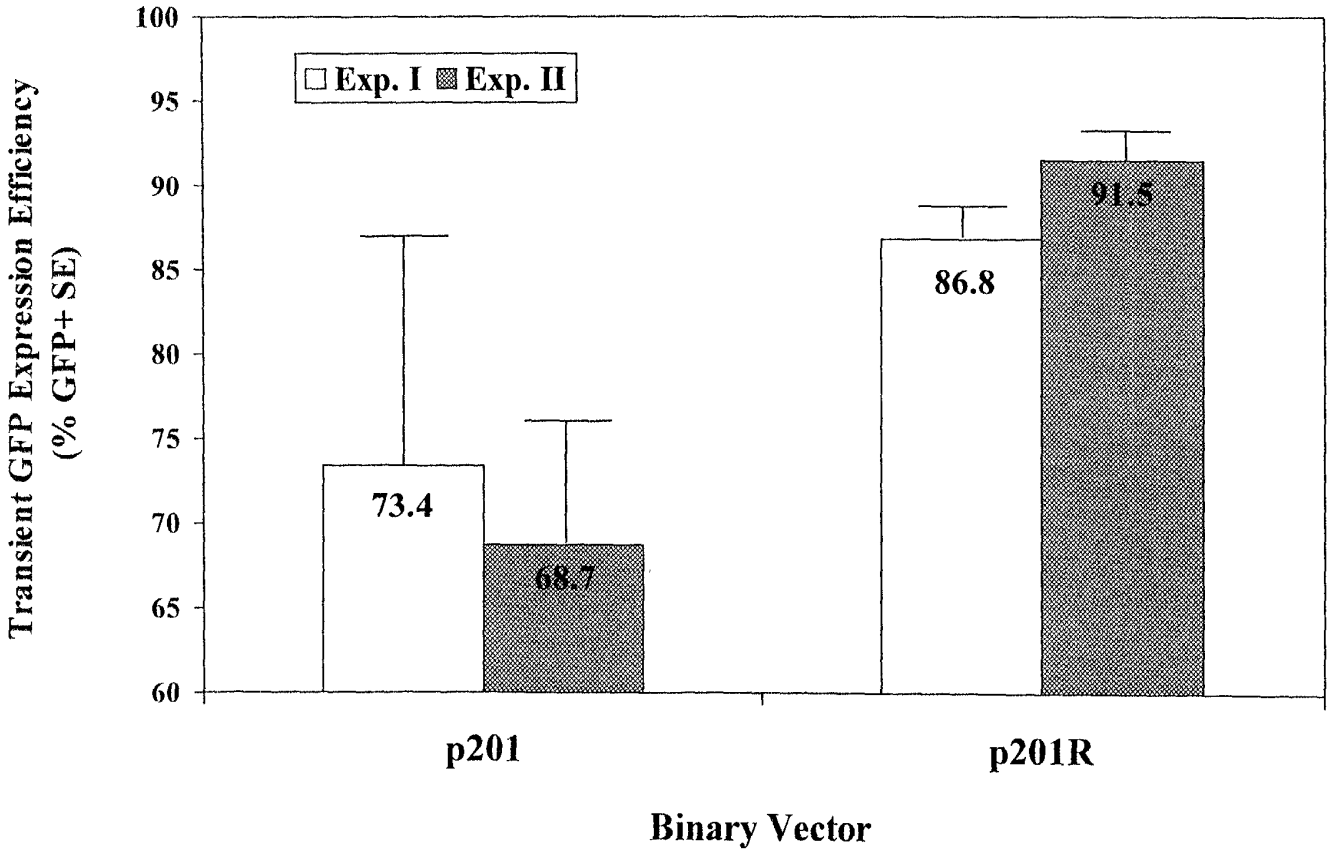
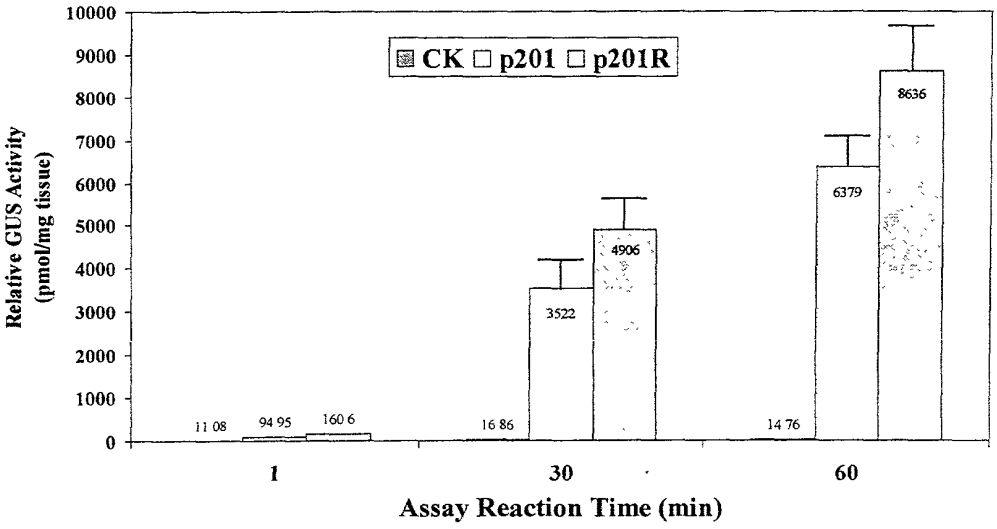


Figure 16 Analysis of GUS Activity in Grape SE (*V. vinifera* cv. Thompson Seedless) after Transformation Using Binary Vectors p201 and p201R

Experiment I



Experiment II

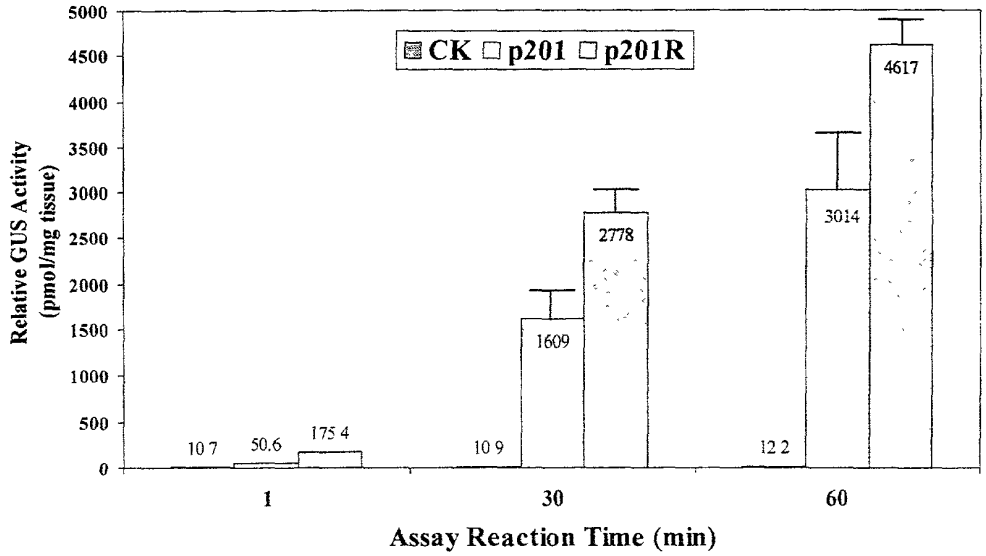


Figure 17. GFP Expression in SE (A) and Leaf Tissues (B) of Transgenic Grape (*V. vinifera* cv. Thompson Seedless) Containing the T-DNA of p201R

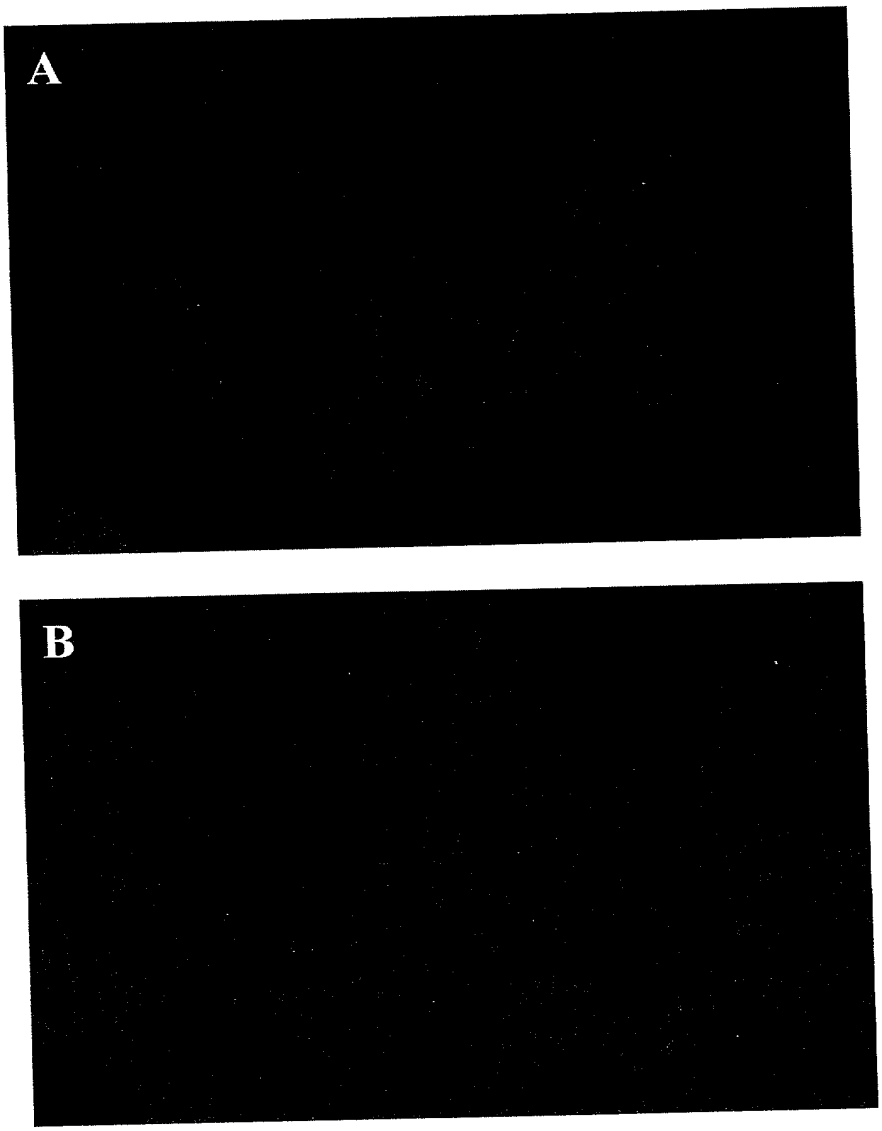
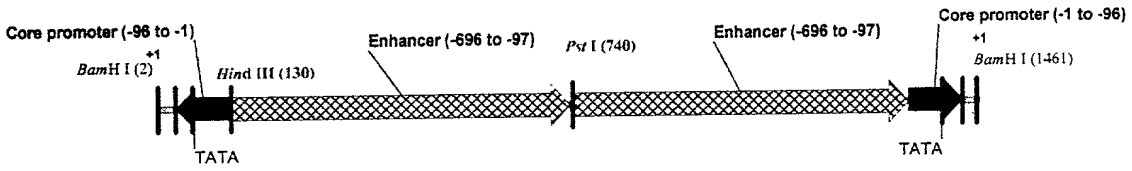


Fig. 18



BDPC with 2 enhancers based on At UBQ1 promoter

1465 bp

Fig. 19

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      BamHI
      ~~~~~~
   1  GGATCCCTTT TGTGTTTCGT CTTCTCTCAC GTAGAAACCC TAAACAAGGA GGAGGCGGGT TTATATATGT CAATGTACGC
      CCTAGGGAAA ACACAAAGCA GAAGAGAGTG CATCTTTGGG ATTTGTTCCT CCTCCGCCCA AATATATACA GTTACATGCG
  ---------------------------------------------------------------------------------------------
                                                          HindIII
                                                          ~~~~~~~
  81  GTCTAGGGTT TTGCTAATAT TGGGCTAGGT TACAGGCCTT TACCACAAAA GCTTAGTTGA TAAAATATTT TTATTTGGTT
      CAGATCCCAA AACGATTATA ACCCGATCCA ATGTCCGGAA ATGGTGTTTT CGAATCAACT ATTTTATAAA AATAAACCAA
  ---------------------------------------------------------------------------------------------
 161  GTAATTTTGT AATATCCCGG GATATTTCAC AAATTGAACA TAGACTACAG AATTTTAGAA AACAAACTTT CTCTCTCTTA
      CATTAAAACA TTATAGGGCC CTATAAAGTG TTTAACTTGT ATCTGATGTC TTAAAATCTT TTGTTTGAAA GAGAGAGAAT
  ---------------------------------------------------------------------------------------------
 241  TCTCACCTTT ATCTTTTAGA GAGAAAAAGT TCGATTTCCG GTTGACCGGA ATGTATCTTT GTTTTTTTTG TTTTGTAACA
      AGAGTGGAAA TAGAAAATCT CTCTTTTTCA AGCTAAAGGC CAACTGGCCT TACATAGAAA CAAAAAAAAC AAAACATTGT
  ---------------------------------------------------------------------------------------------
 321  TATTTCGTTT TCCGATTTAG ATCGGATCTC CTTTTCCGTT TTGTCGGACC TTCTTCCGGT TTATCCGGAT CTAATAATAT
      ATAAAGCAAA AGGCTAAATC TAGCCTAGAG GAAAAGGCAA AACAGCCTGG AAGAAGGCCA AATAGGCCTA GATTATTATA
  ---------------------------------------------------------------------------------------------
 401  CCATCTTAGA CTTAGCTAAG TTTGGATCTG TTTTTTGGTT AGCTCTTGTC AATCGCCTCA TCATCAGCAA GAAGGTGAAA
      GGTAGAATCT GAATCGATTC AAACCTAGAC AAAAAACCAA TCGAGAACAG TTAGCGGAGT AGTAGTCGTT CTTCCACTTT
  ---------------------------------------------------------------------------------------------
 481  TTTTTGACAA ATAAATCTTA GAATCATGTA GTGTCTTTGG ACCTTGGGAA TGATAGAAAC GATTTGTTAT AGCTACTCTA
      AAAAACTGTT TATTTAGAAT CTTAGTACAT CACAGAAACC TGGAACCCTT ACTATCTTTG CTAAACAATA TCGATGAGAT
  ---------------------------------------------------------------------------------------------
 561  TGTATCAGAC CCTGACCAAG ATCCAACAAT CTCATAGGTT TTGTGCATAT GAAACCTTCG ACTAACGAGA AGTGGTCTTT
      ACATAGTCTG GGACTGGTTC TAGGTTGTTA GAGTATCCAA AACACGTATA CTTTGGAAGC TGATTGCTCT TCACCAGAAA
  ---------------------------------------------------------------------------------------------
 641  TAATGAGAGA GATATCTAAA ATGTTATCTT AAAAGCCCAC TCAAATCTCA AGGCATAAGG TAGAAATGCA AATTTGGAAA
      ATTACTCTCT CTATAGATTT TACAATAGAA TTTTCGGGTG AGTTTAGAGT TCCGTATTCC ATCTTTACGT TTAAACCTTT
  ---------------------------------------------------------------------------------------------
                    PstI
                    ~~~~~~
 721  GTGGGCTGGG CCTTCTGCAG TTGATAAAAT ATTTTTATTT GGTTGTAATT TTGTAATATC CCGGGATATT TCACAAATTG
      CACCCGACCC GGAAGACGTC AACTATTTTA TAAAAATAAA CCAACATTAA AACATTATAG GGCCCTATAA AGTGTTTAAC
  ---------------------------------------------------------------------------------------------
 801  AACATAGACT ACAGAATTTT AGAAAACAAA CTTTCTCTCT CTTATCTCAC CTTTATCTTT TAGAGAGAAA AAGTTCGATT
      TTGTATCTGA TGTCTTAAAA TCTTTTGTTT GAAAGAGAGA GAATAGAGTG GAAATAGAAA ATCTCTCTTT TTCAAGCTAA
  ---------------------------------------------------------------------------------------------
 881  TCCGGTTGAC CGGAATGTAT CTTTGTTTTT TTTGTTTTGT AACATATTTC GTTTTCCGAT TTAGATCGGA TCTCCTTTTC
      AGGCCAACTG GCCTTACATA GAAACAAAAA AAACAAAACA TTGTATAAAG CAAAAGGCTA AATCTAGCCT AGAGGAAAAG
  ---------------------------------------------------------------------------------------------
 961  CGTTTTGTCG GACCTTCTTC CGGTTTATCC GGATCTAATA ATATCCATCT TAGACTTAGC TAAGTTTGGA TCTGTTTTTT
      GCAAAACAGC CTGGAAGAAG GCCAAATAGG CCTAGATTAT TATAGGTAGA ATCTGAATCG ATTCAAACCT AGACAAAAAA
  ---------------------------------------------------------------------------------------------
1041  GGTTAGCTCT TGTCAATCGC CTCATCATCA GCAAGAAGGT GAAATTTTTG ACAAATAAAT CTTAGAATCA TGTAGTGTCT
      CCAATCGAGA ACAGTTAGCG GAGTAGTAGT CGTTCTTCCA CTTTAAAAAC TGTTTATTTA GAATCTTAGT ACATCACAGA
  ---------------------------------------------------------------------------------------------
1121  TTGGACCTTG GGAATGATAG AAACGATTTG TTATAGCTAC TCTATGTATC AGACCCTGAC CAAGATCCAA CAATCTCATA
      AACCTGGAAC CCTTACTATC TTTGCTAAAC AATATCGATG AGATACATAG TCTGGGACTG GTTCTAGGTT GTTAGAGTAT
  ---------------------------------------------------------------------------------------------
1201  GGTTTTGTGC ATATGAAACC TTCGACTAAC GAGAAGTGGT CTTTTAATGA GAGAGATATC TAAAATGTTA TCTTAAAAGC
      CCAAAACACG TATACTTTGG AAGCTGATTG CTCTTCACCA GAAAATTACT CTCTCTATAG ATTTTACAAT AGAATTTTCG
  ---------------------------------------------------------------------------------------------
1281  CCACTCAAAT CTCAAGGCAT AAGGTAGAAA TGCAAATTTG GAAAGTGGGC TGGGCCTTTT GTGGTAAAGG CCTGTAACCT
      GGTGAGTTTA GAGTTCCGTA TTCCATCTTT ACGTTTAAAC CTTTCACCCG ACCCGGAAAA CACCATTTCC GGACATTGGA
  ---------------------------------------------------------------------------------------------
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1361  AGCCCAATAT TAGCAAAACC CTAGACGCGT ACATTGACAT ATATAAACCC GCCTCCTCCT TGTTTAGGGT TTCTACGTGA
      TCGGGTTATA ATCGTTTTGG GATCTGCGCA TGTAACTGTA TATATTTGGG CGGAGGAGGA ACAAATCCCA AAGATGCACT

                              BamHI
                              ~~~~~~~
1441  GAGAAGACGA AACACAAAAG GATCC   Seq. ID No. 13
      CTCTTCTGCT TTGTGTTTTC CTAGG   Seq. ID No. 14
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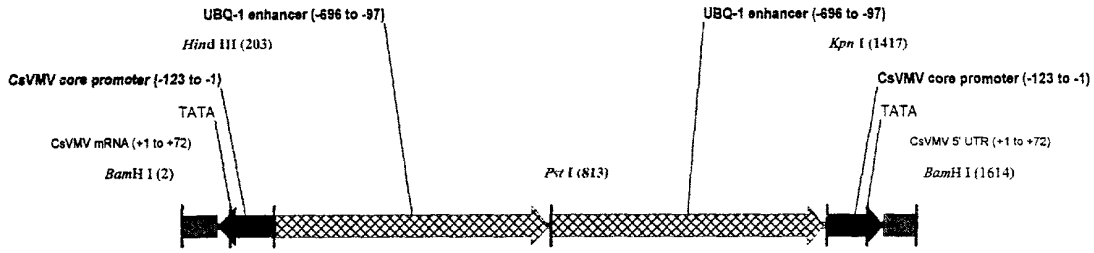
WO 95/25809 PCT/US95/03694

Fig. 20



Heterologous BDPC with 2 UBQ-1 enhancers and 2 CsVMV core promoters

1618 bp

Fig. 21

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      BamHI
      ~~~~~~
   1  GGATCCACAA ACTTACAAAT TTCTCTGAAG TTGTATCCTC AGTACTTCAA AGAAAATAGC TTACACCAAA TTTTTTCTTG
      CCTAGGTGTT TGAATGTTTA AAGAGACTTC AACATAGGAG TCATGAAGTT TCTTTTATCG AATGTGGTTT AAAAAAGAAC

  81  TTTTCACAAA TGCCGAACTT GGTTCCTTAT ATAGGAAAAC TCAAGGGCAA AAATGACACG GAAAAATATA AAAGGATAAG
      AAAAGTGTTT ACGGCTTGAA CCAAGGAATA TATCCTTTTG AGTTCCCGTT TTTACTGTGC CTTTTTATAT TTTCCTATTC

                                                    HindIII
                                                    ~~~~~~
 161  TAGTGGGGGA TAAGATTCCT TTGTGATAAG GTTACTTTCC GAAGCTTAGT TGATAAAATA TTTTTATTTG GTTGTAATTT
      ATCACCCCCT ATTCTAAGGA AACACTATTC CAATGAAAGG CTTCGAATCA ACTATTTTAT AAAAATAAAC CAACATTAAA

 241  TGTAATATCC CGGGATATTT CACAAATTGA ACATAGACTA CAGAATTTTA GAAAACAAAC TTTCTCTCTC TTATCTCACC
      ACATTATAGG GCCCTATAAA GTGTTTAACT TGTATCTGAT GTCTTAAAAT CTTTTGTTTG AAAGAGAGAG AATAGAGTGG

 321  TTTATCTTTT AGAGAGAAAA AGTTCGATTT CCGGTTGACC GGAATGTATC TTTGTTTTTT TTGTTTTGTA ACATATTTCG
      AAATAGAAAA TCTCTCTTTT TCAAGCTAAA GGCCAACTGG CCTTACATAG AAACAAAAAA AACAAAACAT TGTATAAAGC

 401  TTTTCCGATT TAGATCGGAT CTCCTTTTCC GTTTTGTCGG ACCTTCTTCC GGTTTATCCG GATCTAATAA TATCCATCTT
      AAAAGGCTAA ATCTAGCCTA GAGGAAAAGG CAAAACAGCC TGGAAGAAGG CCAAATAGGC CTAGATTATT ATAGGTAGAA

 481  AGACTTAGCT AAGTTTGGAT CTGTTTTTTG GTTAGCTCTT GTCAATCGCC TCATCATCAG CAAGAAGGTG AAATTTTTGA
      TCTGAATCGA TTCAAACCTA GACAAAAAAC CAATCGAGAA CAGTTAGCGG AGTAGTAGTC GTTCTTCCAC TTTAAAAACT

 561  CAAATAAATC TTAGAATCAT GTAGTGTCTT TGGACCTTGG GAATGATAGA AACGATTTGT TATAGCTACT CTATGTATCA
      GTTTATTTAG AATCTTAGTA CATCACAGAA ACCTGGAACC CTTACTATCT TTGCTAAACA ATATCGATGA GATACATAGT

 641  GACCCTGACC AAGATCCAAC AATCTCATAG GTTTTGTGCA TATGAAACCT TCGACTAACG AGAAGTGGTC TTTTAATGAG
      CTGGGACTGG TTCTAGGTTG TTAGAGTATC CAAAACACGT ATACTTTGGA AGCTGATTGC TCTTCACCAG AAAATTACTC

 721  AGAGATATCT AAAATGTTAT CTTAAAAGCC CACTCAAATC TCAAGGCATA AGGTAGAAAT GCAAATTTGG AAAGTGGGCT
      TCTCTATAGA TTTTACAATA GAATTTTCGG GTGAGTTTAG AGTTCCGTAT TCCATCTTTA CGTTTAAACC TTTCACCCGA

            PstI
            ~~~~~~~
 801  GGGCCTTCTG CAGTTGATAA AATATTTTTA TTTGGTTGTA ATTTTGTAAT ATCCCGGGAT ATTTCACAAA TTGAACATAG
      CCCGGAAGAC GTCAACTATT TTATAAAAAT AAACCAACAT TAAAACATTA TAGGGCCCTA TAAAGTGTTT AACTTGTATC

 881  ACTACAGAAT TTTAGAAAAC AAACTTTCTC TCTCTTATCT CACCTTTATC TTTTAGAGAG AAAAAGTTCG ATTTCCGGTT
      TGATGTCTTA AAATCTTTTG TTTGAAAGAG AGAGAATAGA GTGGAAATAG AAAATCTCTC TTTTTCAAGC TAAAGGCCAA

 961  GACCGGAATG TATCTTTGTT TTTTTTGTTT TGTAACATAT TTCGTTTTCC GATTTAGATC GGATCTCCTT TTCCGTTTTG
      CTGGCCTTAC ATAGAAACAA AAAAAACAAA ACATTGTATA AAGCAAAAGG CTAAATCTAG CCTAGAGGAA AAGGCAAAAC

1041  TCGGACCTTC TTCCGGTTTA TCCGGATCTA ATAATATCCA TCTTAGACTT AGCTAAGTTT GGATCTGTTT TTTGGTTAGC
      AGCCTGGAAG AAGGCCAAAT AGGCCTAGAT TATTATAGGT AGAATCTGAA TCGATTCAAA CCTAGACAAA AAACCAATCG

1121  TCTTGTCAAT CGCCTCATCA TCAGCAAGAA GGTGAAATTT TTGACAAATA AATCTTAGAA TCATGTAGTG TCTTTGGACC
      AGAACAGTTA GCGGAGTAGT AGTCGTTCTT CCACTTTAAA AACTGTTTAT TTAGAATCTT AGTACATCAC AGAAACCTGG

1201  TTGGGAATGA TAGAAACGAT TTGTTATAGC TACTCTATGT ATCAGACCCT GACCAAGATC CAACAATCTC ATAGGTTTTG
      AACCCTTACT ATCTTTGCTA AACAATATCG ATGAGATACA TAGTCTGGGA CTGGTTCTAG GTTGTTAGAG TATCCAAAAC

1281  TGCATATGAA ACCTTCGACT AACGAGAAGT GGTCTTTTAA TGAGAGAGAT ATCTAAAATG TTATCTTAAA AGCCCACTCA
      ACGTATACTT TGGAAGCTGA TTGCTCTTCA CCAGAAAATT ACTCTCTCTA TAGATTTTAC AATAGAATTT TCGGGTGAGT
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                                                                  KpnI
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1361  AATCTCAAGG CATAAGGTAG AAATGCAAAT TTGGAAAGTG GGCTGGGCCT TGGTACCCGG AAAGTAACCT TATCACAAAG
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1441  GAATCTTATC CCCCACTACT TATCCTTTTA TATTTTTCCG TGTCATTTTT GCCCTTGAGT TTTCCTATAT AAGGAACCAA
      CTTAGAATAG GGGGTGATGA ATAGGAAAAT ATAAAAAGGC ACAGTAAAAA CGGGAACTCA AAAGGATATA TTCCTTGGTT
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1521  GTTCGGCATT TGTGAAAACA AGAAAAAATT TGGTGTAAGC TATTTTCTTT GAAGTACTGA GGATACAACT TCAGAGAAAT
      CAAGCCGTAA ACACTTTTGT TCTTTTTTAA ACCACATTCG ATAAAAGAAA CTTCATGACT CCTATGTTGA AGTCTCTTTA
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                    BamHI
                    ~~~~~~
1601  TTGTAAGTTT GTGGATCC  Seq. ID No. 15
      AACATTCAAA CACCTAGG  Seq. ID No. 16
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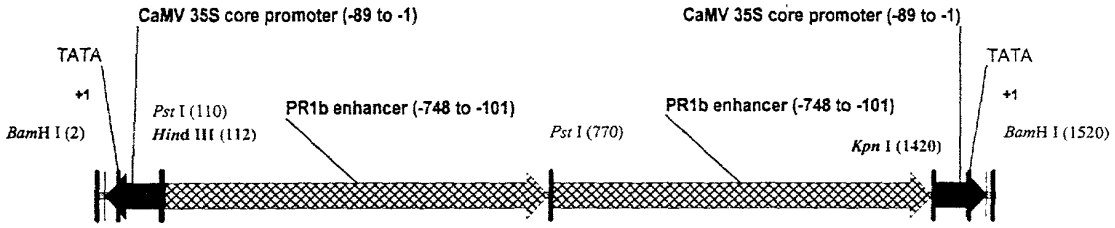
Fig. 22



Heterologous BDPC with 2 PR1b enhancers and 2 CaMV 35S core promoters

1524 bp

Fig. 23

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      BamHI
      ~~~~~~
   1  GGATCCAGCG TGTCCTCTCC AAATGAAATG AACTTCCTTA TATAGAGGAA GGGTCTTGCG AAGGATAGTG GGATTGTGCG
      CCTAGGTCGC ACAGGAGAGG TTTACTTTAC TTGAAGGAAT ATATCTCCTT CCCAGAACGC TTCCTATCAC CCTAACACGC

                                  PstI  HindIII
                                  ~~~~~~~~~~~~~
  81  TCATCCCTTA CGTCAGTGGA GATACTGCAG AAGCTTCAGA CTCATTAACT TAAAAGAAGA TATAGACTCA TTAACTTAAA
      AGTAGGGAAT GCAGTCACCT CTATGACGTC TTCGAAGTCT GAGTAATTGA ATTTTCTTCT ATATCTGAGT AATTGAATTT

 161  AGAAGATATA GATTCCAACA CAAGTTCAAA ATTCATAAAC GTCAATCTTG GCTAAATTTC TGAACATCAA TGCATTCCTT
      TCTTCTATAT CTAAGGTTGT GTTCAAGTTT TAAGTATTTG CAGTTAGAAC CGATTTAAAG ACTTGTAGTT ACGTAAGGAA

 241  TAAAATATAG ATAATAAGTT AGGATGTTGT CACTTTCTTA AAGCATATTC CGACTGAGTC TGGTAGAATC TCATAAACTT
      ATTTTATATC TATTATTCAA TCCTACAACA GTGAAAGAAT TTCGTATAAG GCTGACTCAG ACCATCTTAG AGTATTTGAA

 321  TAGGCCTTAT CTCTTCAATT AGGCAATTAC TTACCTCCGC TCTACTTTAA GAAAATTCAA TGGAGTACAC CATTATTAAG
      ATCCGGAATA GAGAAGTTAA TCCGTTAATG AATGGAGGCG AGATGAAATT CTTTTAAGTT ACCTCATGTG GTAATAATTC

 401  TTCATATAAA AATAAAATTA TATTAATTCT GTCTCTTGTT GGTTCGCTCT ATCTTTTTCT GTTTTCCTGC TTCAACCATA
      AAGTATATTT TTATTTTAAT ATAATTAAGA CAGAGAACAA CCAAGCGAGA TAGAAAAAGA CAAAAGGACG AAGTTGGTAT

 481  ACATATACAA GAACTACATT TTCCAAGCTA GATATATCTA ACATGACTGA CTTTGTAAAT TTCTTTTGCC AAGTTAAAGA
      TGTATATGTT CTTGATGTAA AAGGTTCGAT CTATATAGAT TGTACTGACT GAAACATTTA AAGAAAACGG TTCAATTTCT

 561  AAAAAAATGA TGTTATCCAA ATAATAAAGA GAAAGAGCCC TAATGAAAAA AATGATTTAC TATTAGAGTT GTTCAGCTAA
      TTTTTTTACT ACAATAGGTT TATTATTTCT CTTTCTCGGG ATTACTTTTT TTACTAAATG ATAATCTCAA CAAGTCGATT

 641  TCACATCAAT TATGGTTTTC ATCAAGTATG ACTAATGGCG GCTCTTATCT CACGTGATGT GACATTGAAA TTCTTTGACT
      AGTGTAGTTA ATACCAAAAG TAGTTCATAC TGATTACCGC CGAGAATAGA GTGCACTACA CTGTAACTTT AAGAAACTGA

                                                      PstI
                                                      ~~~~~~
 721  TTAACACTAA TGTCATATGC TTTCAAATTA ATAATCCGAT AAAGCTGCAG ACTCATTAAC TTAAAAGAAG ATATAGACTC
      AATTGTGATT ACAGTATACG AAAGTTTAAT TATTAGGCTA TTTCGACGTC TGAGTAATTG AATTTTCTTC TATATCTGAG

 801  ATTAACTTAA AAGAAGATAT AGATTCCAAC ACAAGTTCAA AATTCATAAA CGTCAATCTT GGCTAAATTT CTGAACATCA
      TAATTGAATT TTCTTCTATA TCTAAGGTTG TGTTCAAGTT TTAAGTATTT GCAGTTAGAA CCGATTTAAA GACTTGTAGT

 881  ATGCATTCCT TTAAAATATA GATAATAAGT TAGGATGTTG TCACTTTCTT AAAGCATATT CCGACTGAGT CTGGTAGAAT
      TACGTAAGGA AATTTTATAT CTATTATTCA ATCCTACAAC AGTGAAAGAA TTTCGTATAA GGCTGACTCA GACCATCTTA

 961  CTCATAAACT TTAGGCCTTA TCTCTTCAAT TAGGCAATTA CTTACCTCCG CTCTACTTTA AGAAAATTCA ATGGAGTACA
      GAGTATTTGA AATCCGGAAT AGAGAAGTTA ATCCGTTAAT GAATGGAGGC GAGATGAAAT TCTTTTAAGT TACCTCATGT

1041  CCATTATTAA GTTCATATAA AAATAAAATT ATATTAATTC TGTCTCTTGT TGGTTCGCTC TATCTTTTTC TGTTTTCCTG
      GGTAATAATT CAAGTATATT TTTATTTTAA TATAATTAAG ACAGAGAACA ACCAAGCGAG ATAGAAAAAG ACAAAAGGAC

1121  CTTCAACCAT AACATATACA AGAACTACAT TTTCCAAGCT AGATATATCT AACATGACTG ACTTTGTAAA TTTCTTTTGC
      GAAGTTGGTA TTGTATATGT TCTTGATGTA AAAGGTTCGA TCTATATAGA TTGTACTGAC TGAAACATTT AAAGAAAACG

1201  CAAGTTAAAG AAAAAAAATG ATGTTATCCA AATAATAAAG AGAAAGAGCC CTAATGAAAA AAATGATTTA CTATTAGAGT
      GTTCAATTTC TTTTTTTTAC TACAATAGGT TTATTATTTC TCTTTCTCGG GATTACTTTT TTTACTAAAT GATAATCTCA

1281  TGTTCAGCTA ATCACATCAA TTATGGTTTT CATCAAGTAT GACTAATGGC GGCTCTTATC TCACGTGATG TGACATTGAA
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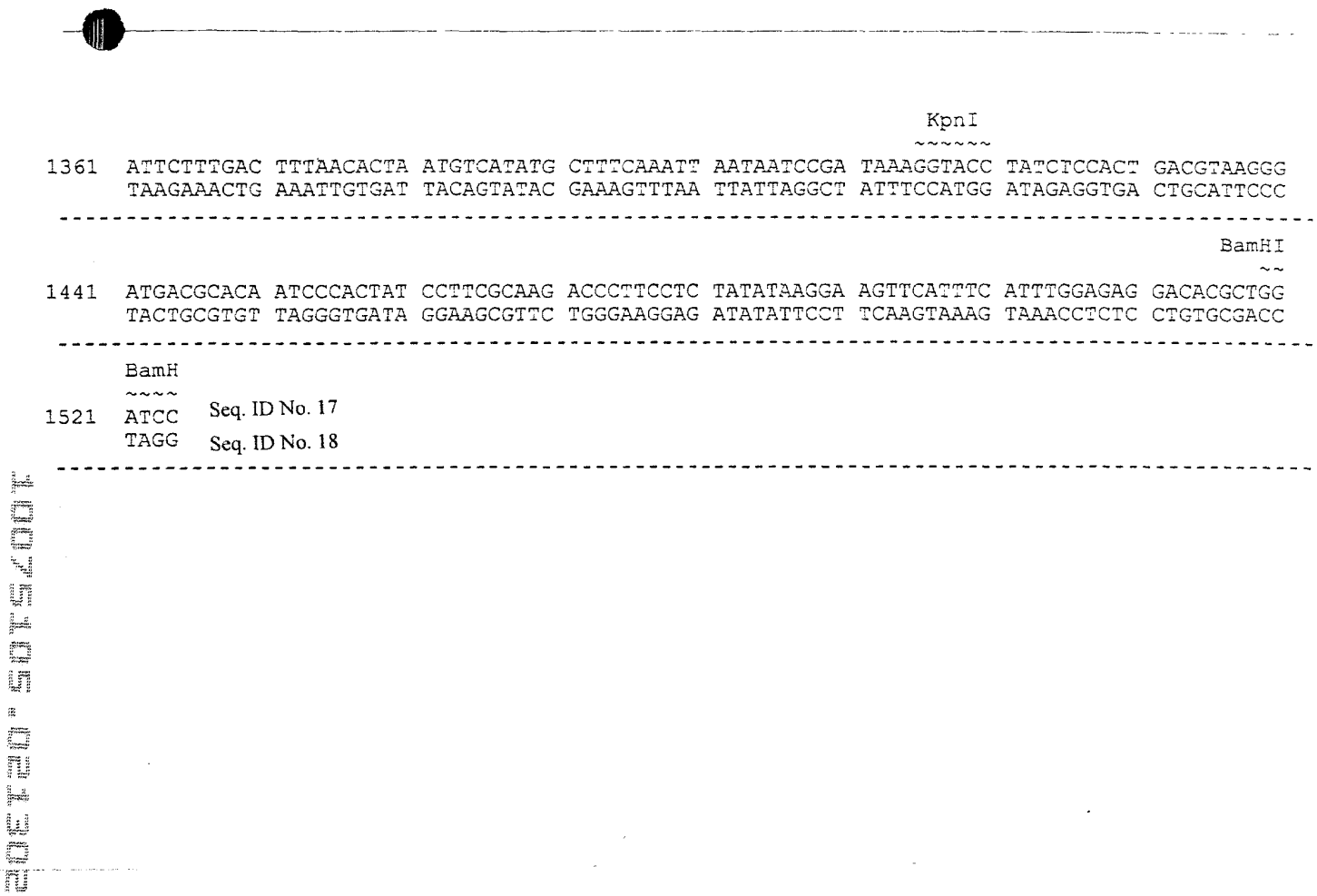

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Seq. ID No. 18

Applied Biosystems

Figure 24 . Physical Map of T-DNA Region of CaMV 35S Promoter-derived Binary Vectors Containing a BDPC

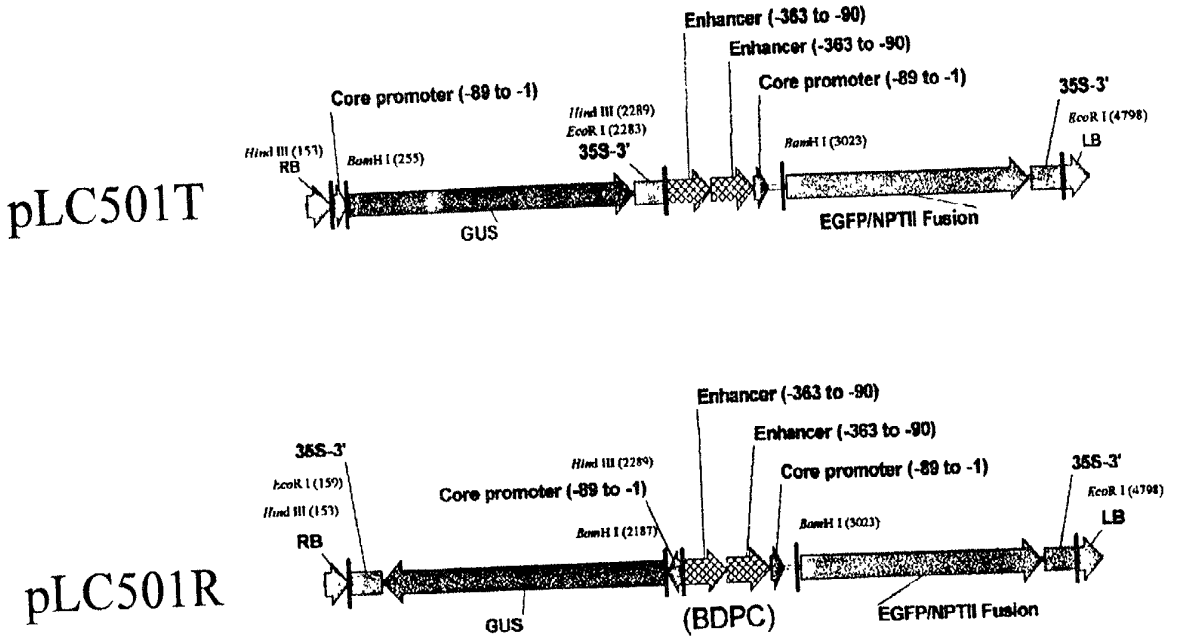

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Figure 25. Analysis of GUS Activity in Grape SE (*V. vinifera cv.* Thompson Seedless) after Transformation Using Three Binary Vectors

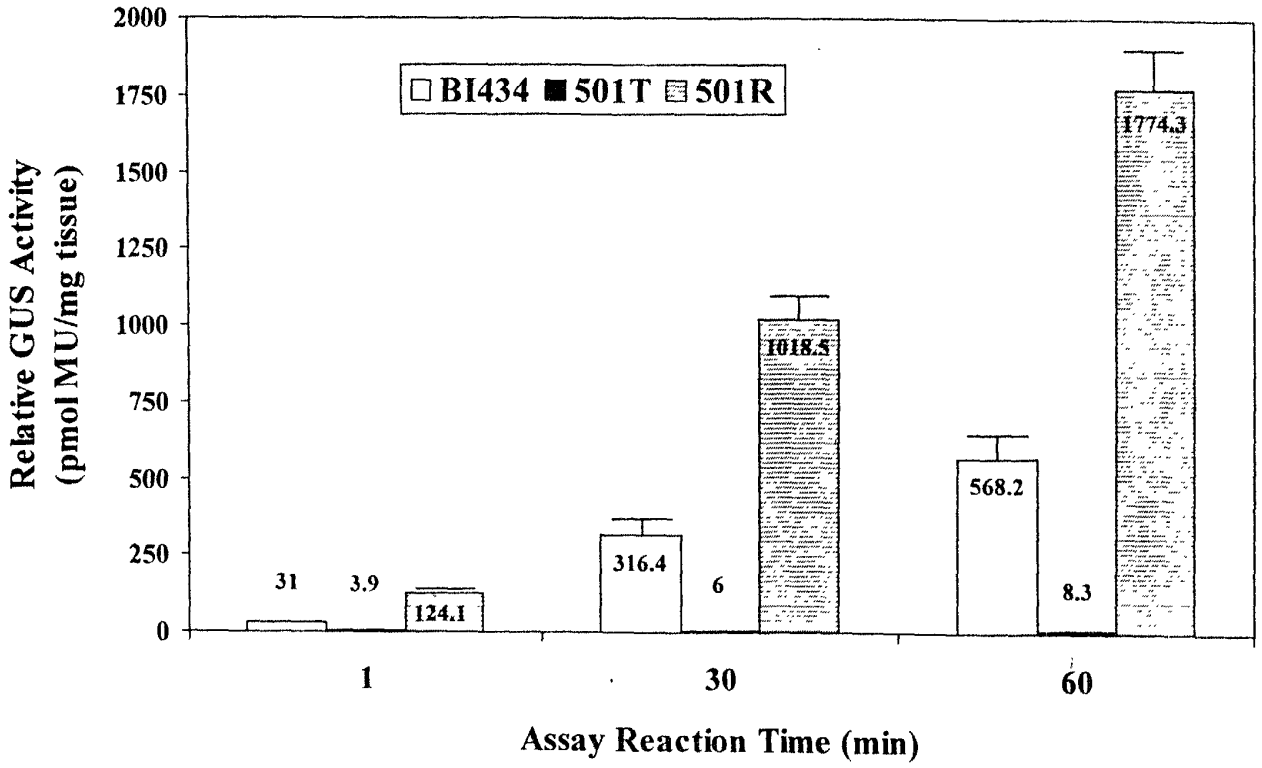
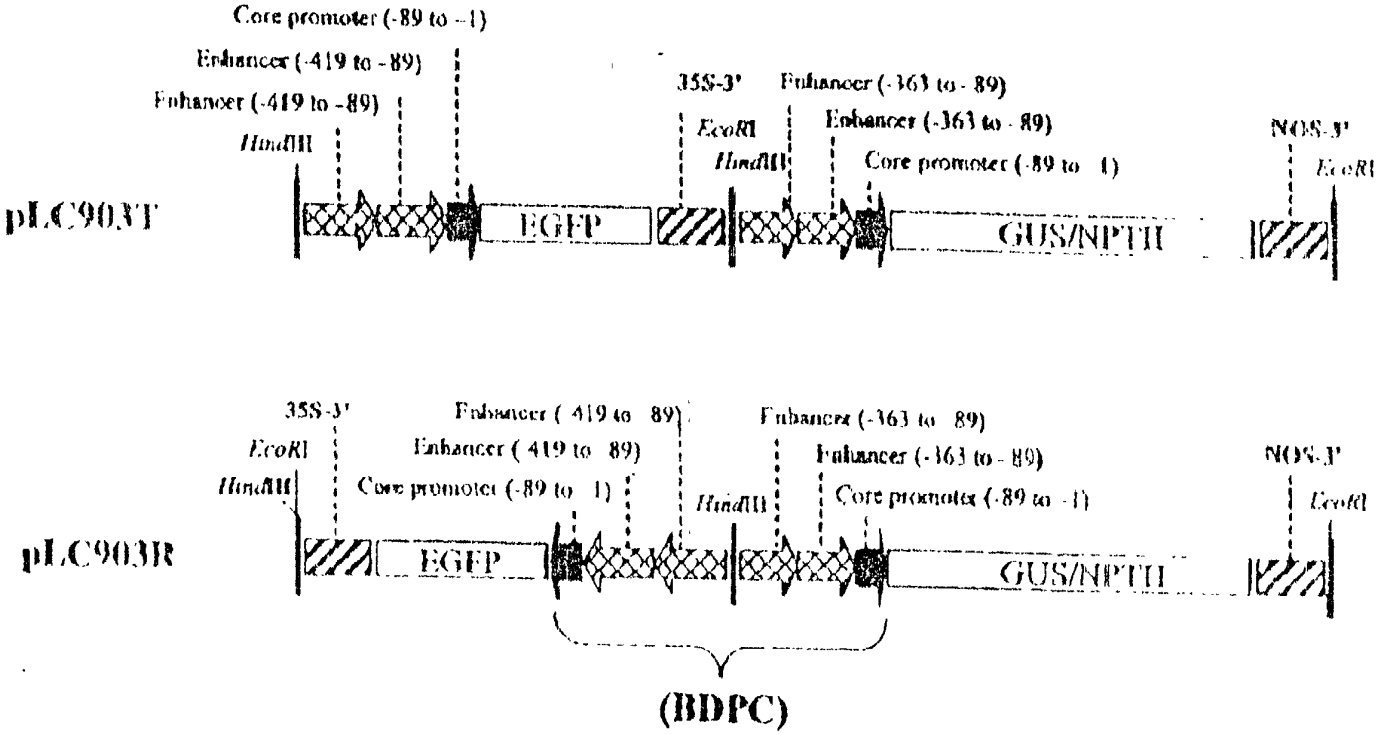


Figure 26. Physical Map of T-DNA Region of Transformation Vectors with 4-Enhancer-Containing BDPC



20ET20* SOTSZOOT

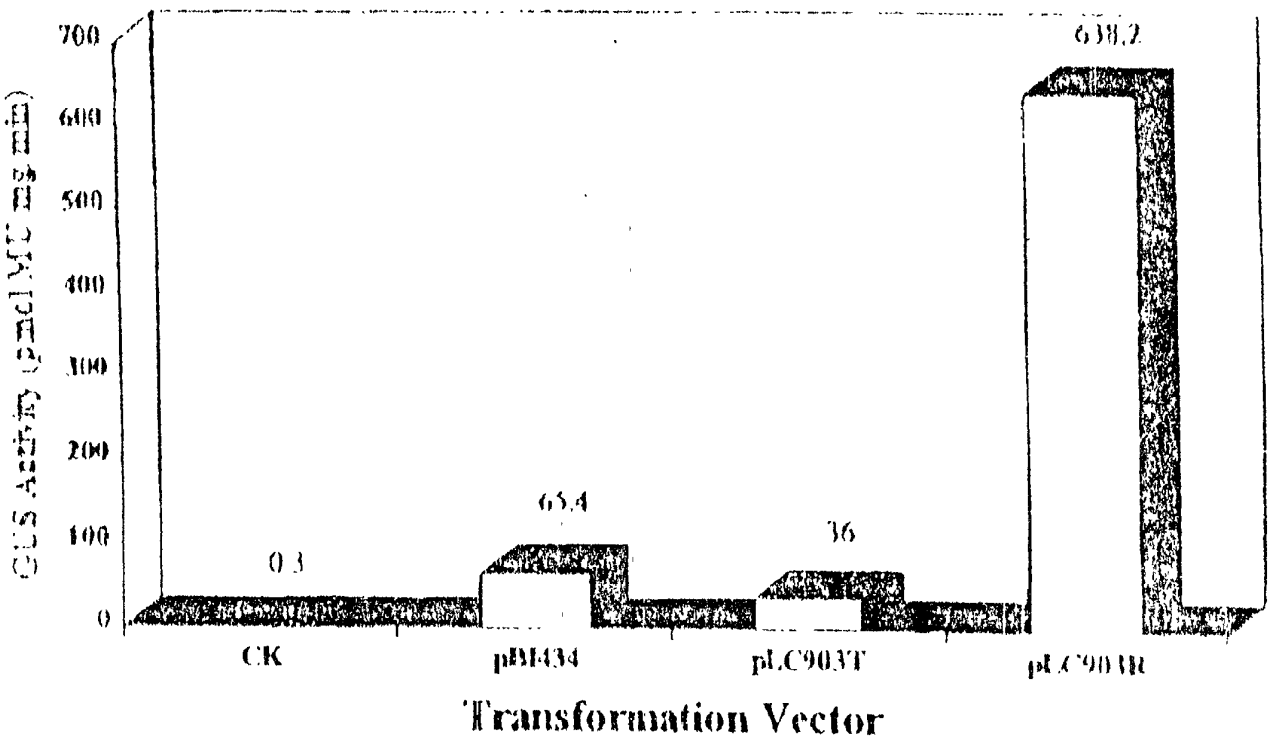



Figure 27. Analysis of GUS Activity in SE (*V. vinifera* cv. Thompson Seedless) after transformation Using Three Binary Vectors